



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,892	12/11/2003	Gary W. Johnson	3448-129	1553

7590 08/22/2005

Woodard, Emhardt, Moriarty, McNett & Henry LLP
Bank One Center/Tower
Suite 3700
111 Monument Circle
Indianapolis, IN 46204-5137

EXAMINER

WHITTINGTON, KENNETH

ART UNIT PAPER NUMBER

2862

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/733,892	Applicant(s) JOHNSON ET AL.	
	Examiner Kenneth J. Whittington	Art Unit 2862	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-29 is/are allowed.
- 6) ☒ Claim(s) 30, 31, 36 and 38-40 is/are rejected.
- 7) ☒ Claim(s) 32-35 and 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

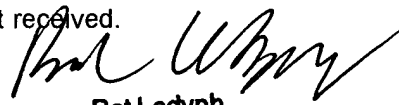
Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


Bot Ledynh
Primary Examiner

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2862

DETAILED ACTION

The Amendment filed July 5, 2005 has been entered and considered.

Allowable Subject Matter

Claims 1-29 are allowed.

7 The following is an examiner's statement of reasons for allowance:

Regarding claims 1-19, the prior art does not show each sensor position between the respective pole piece and the magnet, in combination with the other features of the claims.

Regarding claims 20-29, they are allowable for the reasons contained in the Office Action mailed March 30, 2005.

14 Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

21 Claims 32-35 and 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base

Art Unit: 2862

claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 32-35, they have allowable subject matter for the reasons contained in the Office Action mailed March 30, 2005.

Regarding claim 37, the prior art does not show or teach the arc shaped pole pieces being concentric with respect to each other, in combination with the other features of the claim.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 30, 31, 36 and 38-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Mase (US 6,414,482). Regarding claim 30, 31, Mase discloses a magnetic position sensor comprising:

a magnet positioned at its center on a rotational axis and polarized in a direction of magnetization arranged substantially perpendicular to said rotational axis (See Mase FIG. 8, item 130);

a first pole piece cooperating with said magnet to provide a first magnetic field, at least partially extending between the magnet and the pole piece (See FIG. 8, right hand item 127,

Art Unit: 2862

field between the magnet and the pole piece through the pole piece and into the gap between the right and left items 127);

a second pole piece cooperating with said magnet to provide a second magnetic field, at least partially extending between the magnet and the second pole piece (See FIG. 8, left hand item 127, field between the magnet and the pole piece through the pole piece and into the gap between the right and left items 127);

a first magnetic flux sensor disposed within said first magnetic field and operable to sense varying magnitudes of magnetic flux density and to generate a first output signal representative of a rotational position of said first magnetic flux sensor relative to said first magnetic field (See FIG. 8, upper item 126); and

a second magnetic flux sensor disposed within said second magnetic field and operable to sense varying magnitudes of magnetic flux density and to generate a second output signal representative of a rotational position of said second magnetic flux sensor relative to said second magnetic field (See FIG. 8, lower item 126).

Regarding claim 36, each of the pole pieces comprise an arc segment (See FIG. 8, items 127).

Art Unit: 2862

Regarding claim 38, each of the pole pieces have a generally u-shaped configuration (See FIG. 8, items 127).

Regarding claim 39, the magnetic fields are generally equal (See FIG. 8 and 10).

Regarding claim 40, note that each of the magnetic sensors, which are Hall sensors, is designed to receive an equivalent magnetic field and transmit an equal signal so that one can work as a fail safe to the other sensor (See col. 12, lines 53-61).

Response to Arguments

Applicant's arguments filed July 5, 2005, have been fully considered and they are persuasive in part. The Applicant's primary contention for patentability of claim 30 (and those depending therefrom) is that the pole pieces 129 and magnet 130 shown in FIG. 8 of Mase does not read onto the claims as amended. In view of the amendments to claim 30, the Examiner agrees.

However, the combination of the magnet 130, the pole pieces 127 and the sensors 126 in FIG. 8 of Mase reads on the claims, as amended, as noted in the amended rejection.

Conclusion

Applicant's amendment necessitated the new/amended ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

7 A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any
14 extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth J. Whittington whose telephone number is (571) 272-2264. The
21 examiner can normally be reached on Monday-Friday, 7:30am-4:00pm.

Art Unit: 2862

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be
7 obtained from the Patent Application Information Retrieval
(PAIR) system. Status information for published applications
may be obtained from either Private PAIR or Public PAIR. Status
information for unpublished applications is available through
Private PAIR only. For more information about the PAIR system,
see <http://pair-direct.uspto.gov>. Should you have questions on
access to the Private PAIR system, contact the Electronic
14 Business Center (EBC) at 866-217-9197 (toll-free).



Kenneth J Whittington
Examiner
Art Unit 2862

kjw

Bot Ledyh
Primary Examiner